

In re Application of:  
Haussecker et al.  
Application No.: 10/685,867  
Filed: October 14, 2003  
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PATENT  
Atty Docket No.: INTEL1330-1(P14242X)

### **REMARKS/ARGUMENTS**

Claims 3, 14, 15-23 and 27 have been canceled without prejudice or disclaimer. Claims 1, 2, 4, 5, 7, 10, 13 and 24 have been amended. Subsequent to the entry of the present amendment, claims 1, 2, 4-13, 24-26, 28 and 29 are pending and at issue. These amendments and additions add no new matter as the claim language is fully supported by the specification and original claims.

#### **I. Objections under 35 U.S.C. §112, First Paragraph**

Claim 13 is rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement. In particular, the Office Action alleges in claim 13 that the concept of “parameter ranges of known biomolecules are used to constrain the possible values of the estimated parameters” is not found in the original disclosure.

Applicants have amended claim 13 to include “the parameter ranges for known biomolecules are used in estimating the parameters.” Accordingly, withdrawal of the rejection is respectfully requested.

#### **II. Claim objections**

The Office Action objected to claims 1-14 and 24-29 as being very difficult to understand to the use of confusing language. The Office Action suggests the use of the term “object” in place of “subject”.

Applicants have amended the claims to clarify the invention and eliminate the confusing language. Accordingly, withdrawal of the objection to the claims is respectfully requested.

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### **III. Rejections under 35 U.S.C. §102**

Claims 1-7, 12-28 are rejected under 35 U.S.C. §102(a) as allegedly anticipated by Kley, U.S. Patent No. 6,396,054. Applicants respectfully traverse this rejection.

Regarding claim 1, the Office Action states that Kley teaches a method comprising:

- a) imaging a subject by at least two different modalities (different modes) of scanning probe microscopy (SPM) (column 2, lines 24-28);
- b) using a model of the physical structure of the subject to analyze the image (column 4, lines 63-67);
- c) estimating the values of one or more parameters from the images (AFM and STM measurements) (column 10, lines 15-16); and
- d) fusing the estimated parameters obtained from the different images (column 19, lines 20-50).

A rejection of claims under 35 U.S.C. §102 is improper unless each and every element of the claimed subject matter is found, either expressly or inherently described, in a single prior art reference (*Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987); MPEP § 2131).

Applicants have disclosed that a key feature of the invention is alignment of the object by molecular combing, stating in the application that the object “to be analyzed may be attached to a surface and aligned prior to analysis. Alignment may provide for an increased accuracy and/or speed of analysis.” (paragraph [0045]). Applicants have amended claim 1 to include the subject matter of dependent claim 14, namely “aligning an object on a surface by molecular combing”. The Office Action alleges that for “claim 14, Kley further teaches the method wherein the subject surface by molecular combing is (column 17, lines 45-54 and column 28, lines 20-25).” Applicants have reviewed the noted passages and do not find where Kley

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discloses “aligning an object on a surface by molecular combing”, as required in claim 1. Amended claim 1 also requires “analyzing the data using a model-based analysis using one or more models of physical structures of known objects”, “analyzing the data using a model-based analysis using one or more models of physical structures of known objects”, “estimating the values of one or more parameters from the data analysis” and “fusing the estimated parameters to form a parameter-based characterization of the object.” Applicants submit that many of these elements are also missing from the Kley reference, thereby precluding a finding of anticipation.

Regarding claim 24, the Office Action refers back to claims 1 and 14 for teachings and explanations. In addition, the Office Action states that “Kley further teaches a controller (FIG. 26, “controller”, element 114) to control the operation of the scanning probe microscope and memory (FIG. 26, “memory”, element 124) to include one or more characterizations of known structures.”

Applicants have amended independent claim 24 to include similar subject matter of claim 14, namely “a surface for attachment and alignment of the molecular structures by molecular combing prior to analysis”. As discussed above, this element is missing from the Kley reference, thereby precluding a finding of anticipation.

Accordingly, for at least the reasons set forth above, it is submitted that the cited reference does not teach each and every element of the claimed invention and, therefore, respectfully request that the rejection under 35 U.S.C. §102(b) of independent claim 1, along with dependent claims, 2, 4-13, and independent claim 24, along with dependent claims 25, 26, 28, 29, be withdrawn.

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**IV. Rejections under 35 U.S.C. §103**

Claims 8-11 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over the combination of Kley U.S. Patent No. 6, 396,054 and Grand et al. "Epitaxial growth of copper phthalocyanine monolayers on Ag(111)", Surface Science, vol. 336, no. 3, 1 November 1996. Applicants respectfully traverse this rejection.

Claims 8-11 depends upon amended claim 1, which has been shown above to be allowable over the prior art. Therefore, claims 8-11 should be allowable for at least those same reasons. Accordingly, reconsideration and withdrawal of the rejection is therefore respectfully requested.

**V. Double Patenting Rejection under 35 U.S.C. §101**

Claims 1-13 and 24-29 stand provisionally rejected under 35 U.S.C. §101 as being unpatentable over claims 1-13 and 23-28 of co-pending application No. 10/273,312.

Applicants note that a statutory type (35 U.S.C. §101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope (see MPEP 804.2).

Applicants have amended independent claim 1 to include the subject matter of dependent claim 14 (which is not part of this rejection), namely "aligning an object on a surface by molecular combing". Applicants have also amended independent claim 24 to include similar subject matter of claim 14, namely "a surface for attachment and alignment of the molecular structures by molecular combing prior to analysis". With these amendments, claims 1-13 and 24-29 in the present application are no longer coextensive in scope with the claims 1-13 and 23-28 pending in the co-pending application No. 10/273,312. Accordingly, Applicant requests withdrawal of this rejection.

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**VI. Conclusion**

In view of the above amendments and remarks, reconsideration and favorable action on all claims are respectfully requested. In the event any matters remain to be resolved, the Examiner is requested to contact the undersigned at the telephone number given below so that a prompt disposition of this application can be achieved. No fee is believed due in connection with this Response. However, The Commissioner is hereby authorized to charge any fees that may be associated with this communication, or credit any overpayment to Deposit Account No. 07-1896.

Respectfully submitted,

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